

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) Expanded polystyrene (EPS) solubilization method, characterized in that:
 - i) the EPS is brought into contact with at least one initial solvent allowing the EPS to be changed from an expanded solid state to that of a gel; and
 - ii) said gel is brought into contact with at least one complementary solvent, distinct from the initial solvent, allowing the solubilization of said gel in such a way as to obtain a true solution.
2. (Original) Method according to claim 1, characterized in that Stages i) and ii) are carried out successively in this order or simultaneously.
3. (Currently Amended) Method according to ~~claims 1 and 2~~ claim 1, characterized in that it does not include the use of a non-fatty lubricant, ~~such as~~ optionally glycerol.
4. (Currently Amended) Method according to ~~any one of claims 1 to 3~~ claim 1, characterized in that the quantity of initial solvent represents between 10 % and 70 %,

~~preferably~~ optionally between 30 % and 70 % of the volume of the true solution obtained, and the quantity of complementary solvent represents between 10 % and 70 %, ~~preferably~~ optionally between 10 % and 50 % of the volume of the true solution obtained.

5. (Currently Amended) Method according to ~~any one of claims 1 to 4~~ claim 1, characterized in that the proportion of complementary solvent represents between 1 % and 30 %, ~~preferably~~ optionally between 15 % and 30 % of the volume of initial solvent.

6. (Currently Amended) Method according to ~~any one of claims 1 to 5~~ claim 1, characterized in that the initial solvent has a solubility parameter greater than 9.5 $(\text{cal}/\text{cm}^3)^{1/2}$.

7. (Currently Amended) Method according to ~~any one of claims 1 to 6~~ claim 1, characterized in that the initial solvent is ~~chosen~~ selected from the group consisting of acetone, butyronitrile, isophorone, n-butyl lactate, methylisobutylcarbinol, chloroethylene, ethyl-2-hexanol, methylene chloride and cyclohexanone.

8. (Currently Amended) Method according to ~~any one of claims 1 to 7~~ claim 1, characterized in that the initial solvent is acetone.

9. (Currently Amended) Method according to ~~any one of claims 1 to 8~~ claim 1, characterized in that the complementary solvent has a solubility parameter ~~comprised~~ between $8.5 \text{ (cal/cm}^3)^{1/2}$ and $9.5 \text{ (cal/cm}^3)^{1/2}$, preferably optionally between $8.7 \text{ (cal/cm}^3)^{1/2}$ and $9.3 \text{ (cal/cm}^3)^{1/2}$.

10. (Currently Amended) Method according to ~~any one of claims 1 to 9~~ claim 1 characterized in that the complementary solvent is ~~chosen~~ selected from the group consisting of cyclohexamine, ethyl acetate, butyric acid, chloroform, mesityl oxide, methyl ethyl ketone, 1-chlorobutane, amyl acetate, n-butyl acetate, methylal, methyl isoamyl ketone, methyl isobutyl ketone, propyl acetate, diethyl ketone, ethylbenzene and xylene.

11. (Currently Amended) Method according to ~~any one of claims 1 to 10~~ claim 1, characterized in that the complementary solvent is ethyl acetate or methyl ethyl ketone (MEK), or a mixture of ethyl acetate and methyl ethyl ketone.

12. (Currently Amended) Method according to ~~any one of claims 1 to 11~~ claim 1, characterized in that the

initial solvent is acetone and the complementary solvent is ethyl acetate.

13. (Currently Amended) Method according to ~~any one of claims 1 to 12~~ claim 1, characterized in that the initial solvent is acetone and the complementary solvent is methyl ethyl ketone.

14. (Currently Amended) Method according to ~~any one of claims 1 to 13~~ claim 1, characterized in that said method comprises a preliminary stage in which the EPS is washed with a solution of initial solvent containing water.

15. (Currently Amended) Method according to ~~any one of claims 1 to 14~~ claim 1, characterized in that Stage i) is carried out in the presence of an anhydrous salt allowing the residual water absorbed by the EPS or present at the surface of the EPS to be removed.

16. (Original) Method according to claim 15, in which the anhydrous salt is of the calcium sulphate type.

17. (Currently Amended) Method according to ~~any one of claims 14 to 16~~ claim 14, in which the solution of initial solvent for preliminary washing of the EPS is an acetone solution containing from 5 to 40 % water, preferably optionally 10 to 30 %.

18. (Original) Composition allowing the solubilization of EPS comprising

an initial solvent allowing the EPS to be changed from an expanded solid state to a gel;

and at least one complementary solvent distinct from the initial solvent, allowing the complete solubilization of said gel in such a way as to obtain a true solution.

19. (Currently Amended) True solution which can be obtained by the method according to ~~any one of claims 1 to 17~~ claim 1.

20. (Currently Amended) True solution according to claim 19, ~~characterized in that it comprises~~ comprises a quantity of EPS per litre of final solution ~~comprised of~~ between 0.2 and 0.8 kg, ~~preferably~~ optionally between 0.3 and 0.6 kg.

21. (Currently Amended) True solution according to ~~one of claims 19 and 20~~ claim 19, characterized in that it also comprises at least one additive ~~chosen~~ selected from the group consisting of:

a modifier for improving the mechanical properties of the solution;

a tackifier;

a cohesion agent, such as alcohol; and

a load for increasing the volume.

22. (Currently Amended) True solution according to claim 21, in which the modifier is a plasticizer, ~~such as~~ optionally DOP, in a proportion ~~comprised between~~ 5 % and 20 %, ~~preferably~~ optionally between 10 % and 15 % by volume with respect to the total volume of the solution.

23. (Currently Amended) True solution according to claim 21, in which the ~~tackifier~~ modifier is rosin, used in a proportion comprised between 10 % and 20 % by volume with respect to the total volume of the solution.

Claims 24-26 (Cancelled).

27. (New) In a method of using an adhesive for adhering one component to another component, the improvement wherein said adhesive is a true solution according to claim 15.

28. (New) In a method of using a solution for the production of particle board putty, sealing joints, paint, varnish or strippable protection for windows or resin, wherein said solution is the true solution of claim 19.

29. (New) In a method of using a solution for the regeneration or synthesis of a styrene-based polymer or

Appln. No. 10/584,888
Amd. dated March 26, 2007

copolymer, the improvement wherein said solution is the true
solution of claim 19.